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The Effects of Generalized Stress and Anxiety on Clinical Athletic Training Students:

A Qualitative Study

Morgan E. Dumont

A thesis project submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

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FACULTY COMMITTEE:

Committee Chair: Dr. Joshua Pate

Committee Members/ Readers:

Dr. Mikihiro Sato

Dr. Maegan Daniels

Ms. Alyssa Bosley

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Abstract

Stress and anxiety are present and acknowledged on our society as seven out of 10 United States adults deal with moderate stress or anxiety on a daily basis (Beiter et al., 2015). Sport research has primarily focused on student-athletes, how they struggle, and the resources that can be provided to help this population cope and manage their stress. However, there is lack of research about stress and anxiety among those individuals who provide the care to student-athletes, specifically the athletic training students within their clinical assignments. Athletic training students lead similar schedules to student-athletes by devoting time to prepare for practices, be present during practices, conduct post-practice reports of their work, care for student-athletes who are injured, and attend class. The purpose of this study was to investigate what stressors athletic training students face, how they cope with these stressors, and what resources athletic training students sought out for support in coping with their mental health. As students are fully engaged in their time-demanding clinical, they are required to complete a set number of clinical hours as a part of their academic grade. Therefore, it is imperative to investigate not only what causes stress among those caregivers, but also how they cope with stress and anxiety within both their academic and athletic training environments. This qualitative study used interviews to assess the attitudes athletic training students have toward their stress and mental health when related to class and clinical. The researcher also conducted three months of a self-reflexivity journaling to examine how a graduate student's experience compared to the demands of undergraduate athletic training students. Using semi-structured interviews, data were collected from 12 athletic training students at mid-semester who were enrolled in three different academic programs. Data were coded by

the researcher using the constant comparative method. Four themes were constructed from the data: Student Identity, Time Management, Relationships, and Social Support. The fourth theme, Social Support, was the least developed theme as students struggled to find a formal and structured support system for coping with stress and anxiety. Findings from the current study show that a more formal, structured support system should be implemented by both academic departments and athletic training programs in order to better prepare them to manage their own stress while providing care for student-athletes. There should be a shift to holistic care for care providers, including the athletic training student.

Key Words: Mental Health, Athletic Training, Athletic Training Student, Stress, Anxiety

Introduction

Athletic trainers are considered healthcare professionals that are recognized as interpersonal and compassionate providers (Mazerolle et al., 2018). In the athletic training field, athletic trainers provide care to the active population, most traditionally student-athletes. Athletic trainers (ATs) are “highly qualified, multi-skilled health care professionals who collaborate with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions” (NATA, 2017a, para. 2). High levels of responsibility, however, also come with high levels of stress and burnout. A clear link has been established among occupational stress, decreases in job satisfaction, signs and symptoms of burnout, and higher attrition rates for the medical field like athletic training (Reed & Giacobbi, 2004). For athletic training, these characteristics can become present as early as during the educational setting due to time demands.

As much time as student-athletes are required to be present during their season, ATs are there as much as, if not more than, the team. They are required to set up water; direct rehabilitation; tape, brace, or prepare student-athletes for practice; provide on-site medical coverage for practice and games; and then have post-practice duties such as documenting treatments or injury notes. A National Athletic Trainers’ Association Position Statement was released by Mazerolle et al. (2018) providing ATs with the proper practice to work-life balance. The statement suggested there needs to be a focus on the importance of work-life balance as more ATs are burning out of the profession at a young age (Mazerolle et al., 2018). However, this is just focused to the certified ATs who are subjected to poor work-life balance.

Across the United States, thousands of students are enrolled in an athletic training programs and providing care to student-athletes on a daily basis (Stigler, Etzel, & Lantz, 2001). The athletic training curriculum is a rigorous program, especially for the traditional third- and fourth-year students when clinical rotations are implemented. An athletic training curriculum is designed with medical-based education to provide patient care in the five domains of clinical practice: prevention, clinical evaluation and diagnosis, immediate/emergency care, treatment and rehabilitation, and organization and professional health and well-being (NATA, 2017a). The Commission on Accreditation of Athletic Training Education's (CAATE; 2012) Standards of Accreditation states that each athletic training education program accredited by CAATE should have a set minimum and maximum clinical hour requirement with a day off per week, and "include acquisition of knowledge, skills and clinical abilities along with a broad scope of foundational behaviors of professional practice" as well as include an extensive clinical experience (NATA, 2017a, para. 2).

Athletic training students (ATs) have a unique balance of school, clinicals, and personal interests which can be overwhelming and can lead to burnout (Mazerolle, Gavin, Pitney, Casa, & Burton, 2012a). An undergraduate student is typically enrolled in a traditional bachelor's athletic training program (either two or four years). A graduate program student (3+2 and post-baccalaureate) is a student who is obtaining a master's degree in athletic training either in an entry-level five-year program, or a two-year post-bachelor's degree program, where they graduate with a master's degree in athletic training. Due to the high intensity of the athletic training programs and the unique

balance these students have, mental health could be compromised as these students try to meet all the demands of the program while balancing their own life.

Statement of the Problem

There has been a surge in bringing mental health to the forefront with student-athletes, shining a light on ending the stigma associated with mental health services as student-athletes balance school, sport, and life. ATs' schedules often reflect a student-athlete's schedule of class to practice. There has been research on stress in certified ATs, as well as the psychosocial aspect of sport with student-athletes. However, there is little research on athletic training students' stress (Stigler et al., 2001). If more attention has been brought to the mental health of student athletes, then athletic training students should also be given similar attention instead of being positioned with the general student pool at the counselling center. Athletic training students lack self-care as well as mental health coping skills in response to the high demands of the requirements associated with the athletic training education programs (Crutcher, Moran, & Covassin, 2018).

Statement of Purpose

The purpose of this study was to investigate what stressors athletic training students are facing, how they are coping with these stressors, and what resources they are seeking out for support in coping with their mental health.

Significance

The significance of this study was two-fold. First, it was to seek a better understanding on how athletic training students (undergraduate and professional graduate students [MSAT]) in a clinical setting are coping with mental health issues, specifically generalized stress and anxiety. Stilger et al.'s (2001) research was a reflective and

supportive piece of literature to this problem. However, this piece of literature is dated 18 years and there has yet to be discussion on the topic of generalized stress and anxiety in ATs as there has been an emerging attention brought to mental health. Since Stilger et al. was published, the industry has adapted and is in a transitional period that could be a valuable time to reform the athletic training education program structure. This study aimed to understand why ATs do not seek greater help from counselling services or feel inclined to ask for help. Additionally, as there is a transition in the athletic training education program structure from a traditional four-year-bachelor program to a master's 3+2 program or post-professional degree, this sparked an opportunity for discussion of how ATs cope and if there needs to be more support from the athletic training education program.

Exploratory Questions

The following research questions guided this study:

RQ1: How do athletic training students explain their stress and anxiety?

RQ2: What coping methods do athletic training students use to manage stress and anxiety?

RQ3: How do athletic training students seek support for their stress and anxiety?

Definition of Terms

It is important to define the terms that are key for this research study.

Athletic Trainer: “Athletic trainers (ATs) are highly qualified, multi-skilled health care professionals who collaborate with physicians to provide preventative services,

emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions” (NATA, 2017a, para. 2).

Athletic Training Student: Students completing clinical learning requirements in an athletic training education program that is embodied in the clinical integration proficiencies (NATA, 2017a).

Commission on Accreditation of Athletic Training Education (CAATE)-Accredited

Athletic Training Education: The accreditation board for athletic training education programs that regulate the guidelines education.

Clinical: Immersive, hands-on experience required by CAATE where students work under a preceptor for a team and apply what they learn in class.

Generalized Anxiety: “Free-floating’ anxiety because it seems to occur without a particular cause” (Goldman, 2014, p. 29).

Generalized Stress: When a person is evaluating and reacting to an environment and coping with the situations that arise (Garinger, Chow, & Luzzi, 2018).

Preceptor: A supervising certified athletic trainer for clinical students.

Professional Graduate Student (Masters 3+2/ Post-Baccalaureate): A model of education where students pursue a master’s degree in athletic training in a five-year education (3+2), or a two-year master’s degree program after students have already obtained a bachelor’s degree from a university.

Supervisor: An overseeing athletic trainer for a graduate assistant athletic trainer.

Literature Review

Mental health has become a major topic of study with a focus on further reducing stigma. College-age students are suffering from mental health conditions, especially freshmen in the transitional period of college (Beiter et al., 2015). It is crucial for universities to understand what stressors impact students in order to provide the best care (Beiter et al., 2015). Undergraduate ATSs as well as graduate assistant athletic trainers are faced with these stressors and coping as well. There has been little research exploring the sources of stress and coping mechanisms ATSs have on a daily basis, and there are education programs that support athletic trainers with their stress (Reed & Giacobbi, 2004). This is all leading to burnout and contributing to high turnover within the profession. As student-athletes belong to the general undergraduate population as well, they have a demanding and time-intensive schedule with other pressures that come along with their sport that can be linked to mental health issues (Ryan, Gayles, & Bell, 2018). ATSs are at risk for high levels of stress, and burnout is increasing in the profession, so more available counseling services should be available to them. Stigler et al. (2001) suggested “they should be viewed much like student-athletes, first as developing young people in an academic community, and second as people who are actively involved in a very challenging extracurricular activity, college athletics” (p. 404).

Mental Health in Undergraduate Students

Mental health is a change in actions, thoughts, or emotions that lead to further personal issues (Ryan et al., 2018). Mental health is a major factor for students in college due to the immense change and pressures of college. Colleges often offer mental health services for students as a resource; however, many choose to not seek help due to the stigma behind mental health or being labelled with having a mental health issue

(Corrigan, 2004). Eisenburg, Downs, Golberstein, & Zivin (2009) defined perceived public stigma as an individual's perception, whereas personal stigma was defined as an individual's stereotypes and prejudices. Mental health conditions in young adults under 24 years old is half of the disease prevalence in the United States (Hunt & Eisenburg, 2010). The National Alliance on Mental Illness stated that in a survey of more than 700 students with mental illness, 36% of students reported the reason they did not seek care is because of stigma (Kosyluk, 2016). Ryan et al. (2018) discussed how mental illness has become a driving force for redirecting mental health services. Beiter et al. (2015) found that students sought mental health services the most at the 3-4-week mark of the semester and the mid-term period. Only 24% of undergraduate students are receiving treatment for mental health conditions, specifically those diagnosed with depression (Hunt & Eisenburg, 2010). Table 1 provides a review of the literature on mental health in undergraduate students.

Table 1*Research on Mental Health in Undergraduate Students*

Title/Authors	Purpose	Participants	Instruments	Procedures	Results
<p>The prevalence and correlates of depression, anxiety, and stress in a sample of college students</p> <p>Beiter, R. Nash, R. McCrady, M. Rhodes, D. Lindscomb, M. Clarahan, & Sammut, S. (2015)</p>	<p>The purpose of this study was to investigate the Depression Anxiety Stress Scale (DASS 21) and the prevalence of depression, anxiety, and stress in undergraduate students.</p>	<p>The participants in this study were used in a convenience sampling of students at Franciscan University.</p>	<p>The instruments used in this was the Depression Anxiety Stress Scale (DASS 21) and the Stressor Evaluation.</p>	<p>The procedures of this study were to recruit these students, get consent forms, and to get the demographic information. Following that, they took the DASS21. Then following the DASS, they did a stressor evaluation that was Likert scale format and common stressors that were found in previous research.</p>	<p>The results of this study were that stress, depression, and anxiety came from academic pressures, succeeding, and post-graduation plans. These were seen greatly in females, upperclassmen, off-campus and transfer students.</p>
<p>Stigma and Help Seeking for Mental Health Amongst College Students</p> <p>Eisenberg, D. Downs, M. F. Golberstein, & E. Zivin, K. (2009)</p>	<p>The purpose of this study was to look at the relationship of help-seeking behaviors and the association it has with personal and public stigma of mental health.</p>	<p>Participants were 5,555 students enrolled across 13 different universities.</p>	<p>Instruments used were the Discrimination-Devaluation (D-D) Scale to measure stigma. Help-seeking was measured by asking questions</p>	<p>The research was done by randomly selecting 1,000 students from each of the institutions that included student participants. Only 5,555 fully completed the survey after a \$1 incentive was provided. Researchers accounted for non-response by comparing demographics to those who did answer. They resent out the survey to 500 non-responders with a \$5 incentive. The non-</p>	<p>The results of the research showed that perceived public stigma was higher than personal stigma, personal stigma was higher among in demographics of male, younger, Asian, international, more religious, or from a poor family, additionally personal stigma was more associated with help seeking behaviors</p>

			geared toward that topic based off a pre-existing questionnaire from an old research study. Depression and anxiety were measured using the Patient Health Questionnaire.	responders' results showed correlation to previous studies that were done.	
Mental health problems and help-seeking behavior among college students Hunt, J. (2010)	The purpose of this study was to review what literature is available to mental health in the adolescent / young adult populations	No participants	No instruments except pre-existing data	This was a meta-analysis of the data and research that was pre-existent.	With the surge in mental health issues seen, this would be handled appropriately if the students were receiving the care that they need and should be addressed on a national level.
Challenging the stigma of mental illness among college students	The purpose of this study was to identify how education- and	The research conducted looked at	The instruments used were surveys for	The procedure was to randomly assign participants to groups after obtaining an initial attitudes test.	This research shows education and contact decreased stigma and showed that there was an increase of

Kosyluk, K. (2016)	contact-based approaches to anti-stigmas of mental health changes the perspective for college students on mental health.	198 college students in the Chicago area.	initial perceptions and intervention programs, either contact- or education-based. Surveys were a compilation of the AQ-9, RS ES, SSHS. ATSPPHS, SDS. PDDS. GHSQ informal, GHSQ formal.	Following they either sat in an education or contact program. Following the interventions, there was a post-test to see if perceptions changed.	promoting empowerment of those with mental health issues.
Persistence of mental health problems and needs in a college student population Zivin, K., Eisenberg, D., Gollust, S. E, Golberstein, E. (2009)	The purpose of this research was to examine the change in students mental health issues over a two year period as well as investigating the	Midwestern public college students, voluntary participants (5,021 initial, 2,843 took	The perceptions were measured using a follow-up Web-based survey two years post-	The research sought voluntary participants who participated in a baseline Web survey that identified mental health problems in college students. They surveyed these students in 2005, and then followed up in 2007.	The results of this research showed that students on baseline had at least one mental health issue, and 60% had at least one mental health issue at the two-year mark.

	change in their help-seeking over the two year period.	baseline test, 763 took the second survey).	initial survey consisting of the PHQ9 for depression and anxiety, the SCOFF for eating disorders, questions probing about self-harm, suicidal thoughts, medication use, therapy, and perception need.		
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Mental Health in Student-Athletes

Wilson and Pritchard (2005) found that 10% of college student-athletes cope with psychological and physiological problems that require mental health service intervention through a counselling service. Mental illness has become a driving force for redirecting mental health services. Student-athletes with all the added pressures that they experience, such as practice schedules, classes, injuries, and financial stress, are more likely to suffer from mental health illness (Parker et al., 2017). Pressure sources also come from the academic environment, coaches, and in-season events (Ryan et al., 2018). As a result of intense schedules, more than 40% of male and half of female student-athletes stated that their major cause of stress is time management (Wilson & Pritchard, 2005). Difficulties with time management predisposed student-athletes to more mental health illness such as anxiety, depression, substance abuse, and eating disorders (Ryan et al., 2018). More than “85% of ATs felt that anxiety was an issue among student-athletes on their campuses” (Ryan et al., 2018, p. 70). Table 2 provides a review of the literature on mental health in student athletes.

Table 2*Research on Mental Health in Student-Athletes*

Title/Authors	Purpose	Participants	Instruments	Procedures	Results
<p>Student-athletes and mental health experiences</p> <p>Ryan, H., Gayles, J. G., & Bell, L. (2018)</p>	<p>The purpose of this research was to review the literature that highlights the challenges that student-athletes are facing and the barriers they run into when it comes to seeking help.</p>	<p>n/a</p>	<p>n/a</p>	<p>This research was a meta-analysis of different research papers that highlight different mental health illness in student-athletes.</p>	<p>The evidence supports that students, including student-athletes, underutilize mental health resources on campus and student-athletes are facing many mental health illnesses. The four most prevalent were depression, anxiety, substance abuse, and eating disorders. This article offered recommendations for how to end the stigma and what should be offered for student-athletes.</p>
<p>Mental health among college students: Do those who need services know about and use them?</p> <p>Yorgason, J. B., Linvilla, D., & Zitzman, B. (2008)</p>	<p>The purpose of this study was to examine knowledge of mental health services and to see why students have not sought mental health services.</p>	<p>The study examined 266 students with a 35% response rate.</p>	<p>The study used a Web-based survey using the Outcome Questionnaire (OQ).</p>	<p>The surveys were distributed to 750 individuals from an Eastern U.S. university through an anonymous online survey.</p>	<p>Findings showed that people who were mentally distressed want to seek mental health services, but some mentally distressed students did not know about the services or chose not to pursue help.</p>

Anxiety Disorders Goldman, S. (2014)	The purpose of this article was to define and discuss anxiety disorders, signs, symptoms, and treatments for student-athletes and proper practices for healthcare providers.				
Comparing sources of stress in college student-athletes and non-student-athletes Wilson, G. & Pritchard, M. (2005)	The purpose of this article was to explore stressors in freshmen student-athletes.	The participants were 362 student-athletes at a Division I Midwestern university	The participants were asked questions developed from “The Survey of Recent Life Experiences” and asked to rate life experiences.	Data were collected with the survey and participants were asked to rate the life experiences. Data were analyzed among student-athletes and non-student-athletes, exploring the stressors each sample faced.	Results showed that student-athletes dealt with stressors that their non-student-athlete counterparts did not face. Results showed that student-athletes should have mental health services available.

Mental Health in Graduate Assistant Athletic Trainers

Reed and Giacobbi (2004) researched the stress and coping mechanisms of graduate assistant athletic trainers. Graduate assistant athletic trainers balance work and life, and it is crucial that they manage their stressors because of how many hours they need to meet the demands of their student-athletes and the other job-specific responsibilities (Mazerolle et al., 2012a). Research has explored the experiences of full-time ATs and burnout levels; however, there has been a lack of research on graduate assistants with dual obligations of being a healthcare professional and a student (Mazerolle et al., 2012a). The major predictor was that the number of hours worked increased the risk of burnout. Reed and Giacobbi (2004) also examined coping mechanisms and how they are necessary in order to avoid burnout. Prior to Reed and Giacobbi's work, there was not prevalent data to identify the stressors that ATs at the graduate level faced. Reed and Giacobbi found that other sources of stress are present, including student responsibilities, time management, future aspirations, and social stress, such as competition and meeting expectations. The current study was designed based on Reed and Giacobbi's research, although not focused on the population of graduate assistants but instead undergraduate and MSAT students. Table 3 provides a review of the literature on mental health in graduate assistant athletic trainers.

Table 3*Research on Mental Health in Graduate Assistant Athletic Trainers*

Title/Authors	Purpose	Participants	Instruments	Procedures	Results
An assessment of burnout in graduate assistant certified athletic trainers Mazerolle, S., Monsma, E., Dixon, C., & Mensch, J. (2012a)	The purpose of this study was to investigate the causes for burnout to be so high in the graduate assistant AT population, what factors contribute to it, and to see the characteristics in the environment that cause burnout.	Participants of this study were 201 graduate athletic trainers that were members of the NATA and were graduate students at a Division I institution getting their master's degree.	The instrument used was the Athletic Training Burnout Inventory (ATBI).	The procedures of this research were to get a list from the NATA of 846 certified student members, whom received an email about the research. They collected data over a four-week span on an online survey platform.	The results of this research were that traveling graduate athletic trainers and teaching assistant athletic trainers showed higher levels of stress, Division I work is higher time commitment than Division III and high school. Graduate assistant ATs, especially those employed in the Division I clinical setting, work more hours than those in other clinical settings. They were at greater risk for burnout because of work-related responsibilities as well as graduate teaching and academic roles.
The stress and coping responses of certified graduate athletic training	The purpose of this study was to identify the effects of stress amongst	Participants of this study were six graduate assistant athletic	The instruments used were interviews based off questions that were	The procedure was to interview six graduate student athletic trainers.	Findings showed there were six areas of stress that were common amongst all athletic trainer GAs: athletic training duties (e.g., supervisory role, injury care or prevention, documentation, communicating

students Reed, S., Giacobbi, P. R. (2004)	certified graduate assistants and their coping responses over the course of a year.	trainers at an NCAA Division I institution.	carefully constructed through stress coping literature.		with others), comparing job duties, responsibilities as student (e.g., assignments, coursework), time management (e.g., athletic training, school work, daily living), social evaluation (e.g., demonstration of ability, labeled as a student, self- presentation, pleasing others), and future concerns. The research suggested there are coping responses that are optimal to help these GAs cope with their stress (planning, instrumental social support, adjusting to job responsibilities, positive evaluations, emotional social support, humor, wishful thinking, religion, mental or behavioral disengagement, activities outside the profession, and other outcomes).
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Mental Health in Athletic Training Students

It is clear that college-age students are struggling with mental health. As many as 40% of ATs suffer from stress and burnout, but no studies investigate the stress of ATs (Stigler et al., 2001). As ATs are consumed with class as well as clinical, the prevalence of mental health illness is high. ATs work under a certified athletic trainer in an immersive clinical experience and offer full coverage for a sports team or athletics program while managing school (Stigler et al., 2001). This balance of class and clinical needs valuable commitment of time and energy (Stigler et al., 2001).

Stress associated with burnout was higher at the fourth clinical semester of an athletic training education program in comparison to the first semester (Riter et al., 2008); however, the researchers stated that the only research with undergraduate ATs is related to clinical experience and learning. Mazerolle et al. (2012b) explored factors that predispose undergraduate ATs to not “persist” in the athletic training profession. Out of 5,000 members in the NATA, only 600 members continued on to become graduate assistant athletic trainers (Mazerolle et al., 2012b). The results of the study showed that the reasons ATs chose to leave the profession were “(1) shift of interest away from athletic training, (2) lack of respect for the athletic training profession, (3) compensation, (4) time commitment, and (5) athletic training as a stepping stone” (Mazerolle et al., 2012b, p. 683). The current study primarily focuses on the generalized stress and anxiety in ATs and how they cope, rather than their career decisions or burnout as a whole, although generalized stress and anxiety do contribute to these two factors. Table 4 provides a review of the literature on athletic training students.

Table 4*Research on Athletic Training Students*

Title/Authors	Purpose	Participants	Instruments	Procedures	Results
<p>Burnout among undergraduate athletic training students</p> <p>Bowers, M. L. (2012)</p>	<p>The purpose of this study was to investigate burnout in undergraduate athletic training students in an education program.</p>	<p>Participants of this study were 112 junior and senior students in an athletic training program.</p>	<p>The instrument for this study was the Bowers Athletic Training Student Inventory.</p>	<p>Data were collected using random sampling among students that were NATA members to answer the survey.</p>	<p>Results showed that athletic training students have higher burnout from stress in maintaining a high GPA. Results did not support that the year in school affects burnout. Gender did not show to be an influence in burnout rate.</p>
<p>Examining the relationship between social support satisfaction and perceived stress and depression in athletic training students</p> <p>Crutcher, B., Moran, R. N., & Covassian, T. (2018)</p>	<p>The purpose of this study was to see how social support affects the predictive factors of stress and depression in undergraduate students.</p>	<p>Participants were 204 undergraduate students in a CAATE-accredited program.</p>	<p>The instruments of this study were the Perceived Stress Scale, the Center of Epidemiologic Study Depression Scale, and the Social Support Questionnaire.</p>	<p>Surveys were distributed via mail and the Internet to students enrolled in athletic training programs at nine institutions competing at the Division I-Division III levels.</p>	<p>Results showed that social support satisfaction was an indicator of stress and depression decrease, and it is suggested that social support would be useful among undergraduate athletic training students.</p>

Undergraduate athletic training students' influences on career decisions after graduation Mazerolle, S. (2012b)	The purpose of this study was to investigate the plans of senior undergraduate athletic training students' post-graduation plans and what influences helped make those decisions.	Participants were 22 male and female ATs that were seniors in 13 different ATEP programs.	The tool that was used was a two-step interview following a Likert-type scale background survey.	Recruitment began by e-mailing invitations to 75 random program directors that distributed the information to their students. Students who agreed completed a background survey and then completed an interview which was nine questions. Following that, they had a second interview that asked for more details.	Results showed two major themes of the research. The themes were persisting and leaving. Out of the 22 participants, 12 were going to persist in athletic training and 10 were going to leave. This provided insight as to why the individuals felt that they needed to persist or leave, revealing motives such as professional growth and real-world experience as well as a shift in interest and lack of respect for AT.
Presence of burnout in undergraduate athletic training students at one western US university Riter, T. S., Kaiser, D. A., Hopkins, T., Pennington, T., Chamberlain, R., & Eggett, D. (2008)	The purpose of this study was to investigate burnout, the causes, and the extent of it.	The participants were 51 undergraduate students in an ATEP program.	The instrument in this study was a modified Maslach Burnout Inventory Human Services Survey (MBI-HSS).	The survey was administered twice in an eight-week period during the second 15-week semester of the 2005/2006 school year. The survey examined degrees of burnout and possible causes.	Results showed high levels of emotional exhaustion and low depersonalization. Fourth-semester students were higher for both, but there was less emotional exhaustion when they were in a relationship. Burnout happened with high depersonalization, emotional exhaustion, and low personal accomplishment.

<p>Life-stress sources and symptoms of collegiate student athletic trainers over the course of an academic year</p> <p>Stilger, V., Etzel, E. F., Lantz, C. D. (2001)</p>	<p>The purpose of this study was three parts: to identify the stressors that athletic training students were facing, to find any differences in sex within the sample, and to suggest how to provide help for this population.</p>	<p>The research consisted of 20 student athletic trainer participants from an NCAA Division I Mid-Atlantic university undergraduate program.</p>	<p>The instrument used was the Quick Stress Questionnaire, which is a stress-related symptom survey. The survey rated areas of stress in areas of academic, social/personal, family, financial, self-image, health, sexual, and day-to-day hassles. It also identified the types and degrees to which they experience various stress-related symptoms.</p>	<p>The procedure was to administer the survey during class, at the beginning of each month (eight total administrations).</p>	<p>Results showed there was a fluctuation of stress levels among athletic training students over the course of the year. Females showed higher stress.</p>
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Theoretical Framework

Students within athletic training programs deal with copious amounts of stress and pressures to excel in order to learn how to provide the best care when in clinical and when they graduate. Such stress and pressure can be viewed through the lens of the Transactional Theory of Stress and Coping, developed by Lazarus and Folkman (1987). The Transactional Theory of Stress and Coping states that people will have better coping skills for stress when they have more positive affirmation from support systems (Lazarus & Folkman, 1987). Coping has been defined as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Anshel & Anderson, 2002, p. 4). Coping behaviors are extremely crucial for the field of athletic training because of the observed challenges certified ATs already face (Reed & Giacobbi, 2004). This is a direct reference to Lazarus and Folkman’s (1987) Transactional Theory of Stress and Coping, and Reed and Giacobbi (2004) explored how ATs manage their stress. Lazarus and Folkman (1988) later stated that coping includes cognitive processes, and that problem-solving behaviors, when used, lessen and control anxiety and depression. Anshel and Anderson (2002) found that “student-athletes’ coping style was a function of the type of stressful event” (p. 13). The gap in the literature is that the Transactional Theory of Stress and Coping has been applied to student-athletes; however, there has been little research within the educational setting combined with athletics, such as the world of athletic training. Table 5 provides a review of the literature on the theoretical framework of Transactional Theory of Stress and Coping.

Table 5*Research on Transactional Theory of Stress and Coping*

Title/Authors	Purpose	Participants	Instruments	Procedures	Results
Transactional Theory and research on emotions and coping Lazarus, R. & Folkman, S. (1987)	The purpose of this study was to examine the literature of cognitive-relational theory of emotion and coping and assess the progress in the research.	n/a	n/a	n/a	People should tell their stories because there is a lot that can help understand how one handles their own stress and coping methods., and more practical interventions can be derived from those individuals.
Coping as a mediator of emotion Lazarus, R. & Folkman, S. (1988)	The purpose of this study was to investigate how coping mediates the emotional response in stressful encounters, as well as the limitations and diversity	Participants were 141 people separated into an older and younger population.	Participants were interviewed in their home over a course of six months and completed the Ways of Coping Questionnaire.	The study looked to measure participants' most stressful encounter.	Results showed that coping mediated the emotional and stressful events that happened within both age groups.

	in emotional responses.				
<p>Coping styles following acute stress in sport among elite Chinese athletes: A test of trait and transactional coping theories</p> <p>Anshel, M. (2002)</p>	<p>The purpose of this study was to investigate coping styles consistent in different forms of short- term stress.</p>	<p>Participants were elite athletes from the People's Republic of China (N = 391, 253 males and 138 females).</p>	<p>Interview of the athletes and inventory of stressors were means by which data were collected.</p>	<p>The participants were interviewed to validate an inventory of athletes and coaches.</p>	<p>There were correlations with the coping styles of the eight listed and validated stressors showing that the Transactional Theory of Stress and Coping was supported.</p>
<p>Organizational stress in high-level field hockey: Examining transactional pathways between stressors, appraisals, coping and performance satisfaction</p> <p>Didymus F. F. & Fletcher, D. (2017)</p>	<p>The purpose of this study was to investigate the stressors and coping that high-level athletes use and how that effects participation.</p>	<p>Participants were 10 high-level field hockey players of the same team.</p>	<p>Methods of data collection were interview and survey questions.</p>	<p>Participants were interviewed in three sections and then the data were transcribed.</p>	<p>Data suggests and supports that organizational stressors and coping have a link and that support seeking is both beneficial and not to coping.</p>

Literature Review Summary

As seen in the literature, there is support showing that mental health has become more prevalent across college campuses within the general student population and throughout athletics. In 2015, there was a 231% increase in mental health services per year over a four-year period (Beiter et al., 2015). There is support showing that both undergraduate and graduate ATSs suffer from mental health conditions (Reed & Giacobbi, 2004; Stilger et al., 2001). While the schedule demands of ATSs are similar to those of student-athletes, little research has been conducted to address how those similar schedule demands shape the stress of ATSs in relation to time commitment and support systems available on campus. This research study aims to investigate stressors that predispose ATSs to generalized stress and anxiety, how they cope, and question if they should have more readily available service or support systems.

Methodology

The timeframe for study was as follows:

August 2019:	IRB approval (see Appendix D)
September 2019:	Recruited participants
September /October 2019:	Data collection
November 2019-January 2020:	Data analysis

Research Design

The design of this research was a qualitative study with an epistemological lens of constructivism. Qualitative research is defined as “an umbrella term covering an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning of, not the frequency of, certain more or less naturally occurring

phenomena in the social world” (Merriam, 2009, p. 13). This study used methods of qualitative open-ended questions in the form of an interview (telephone, Skype/FaceTime, or in-person) as well as field notes. Participants were recruited using convenience and snowball sampling upon IRB approval. Participants were recruited by accessing the CAATE website which has a full list of program directors on the site for every program across the country. This case study was bounded by focusing only on AT programs within the state of Virginia. This information was used to e-mail program directors to distribute the research invitations to their program’s ATSs. From there, students contacted the researcher to schedule their interview. The interviews lasted an average of 15 minutes and were recorded on a handheld digital recorder. The interviews were administered right before mid-semester to see how the perceptions of stress and anxiety shape the clinical ATS experience. The researcher, as a certified athletic trainer and graduate assistant in the field, had an interrelation with the sample (Creswell, 2007). Because the researcher is an athletic trainer and was an athletic training student, and is studying the athletic training student population, she aimed to stay as transparent as possible to limit the bias as she was conducting her own journaling. This was to ensure she was not just writing what would give the best results to the study.

Sample

The population of this study was clinical ATSs and graduate students. The focus was on professional undergraduate junior and senior students, and professional master students (3+2, post- baccalaureate). The sample excluded freshman and sophomore students and/or those not enrolled in a clinical experience. Participants were selected based off convenience and snowball sampling. University athletic training program

directors in the state of Virginia were contacted from the information accessed from the CAATE website. Program directors from eight academic programs responded and agreed to send invitations to participate to their program's students. Program directors were asked to share an invitation to participate in the current study with the students enrolled in their program. Prospective participants were left with contact information, where they could e-mail the primary researcher with their interest in participation. Upon agreement of participation, individuals were contacted and presented a consent form. Participation in this study did not influence a student's work or academics.

Data Collection

Data collection was initiated mid-September in order to better understand the perception of how stress impacts athletic training students around mid-semester. The researcher e-mailed 12 program directors in the state of Virginia with an athletic training program (bachelor's or master's). A follow-up e-mail was sent the second week of October. The researcher aimed for 8-12 participants or until the findings were found to be saturated. A total of 12 participants consented for this study, with students representing three of the 12 schools recruited (see Table 6). All participants were from schools with bachelor's degree programs (no master's AT programs). The 12 participants contacted the researcher with interest in participating in the study. Each participant consented to the research before data collection began via in-person or telephone interviews. Semi-structured interviews began September 23, 2019. Interviews were concluded by November 1, 2019.

Participants scheduled an interview time that lasted from 9-21 minutes, with an average of 15 minutes. Open-ended questions were asked of the participants on the topic

of generalized stress and anxiety affects. Semi-structured interviews were asked of the participants. Semi-structured interviews are a mix of structured and flexible interview questions that allow the researcher to “respond to the situation at hand, to the emerging worldview of the respondent and to new ideas on the topic” (Merriam, 2009, p. 90).

Interviews included questions such as, “How does the athletic training student lifestyle affect your life?”, “How do you feel your stress has changed or stayed the same since you started this semester?”, and “Do you experience anxiety in your life? If yes, what resources have you sought?”. Refer to Appendix C for the full interview protocol.

Interviews were recorded on a handheld digital recorder and then transcribed into a Microsoft Word file and saved on the password-protected computer of the researcher. Digital recording files were deleted at the conclusion of data collection. The recorder and all transcribed interviews remained locked in the office of the researcher. All other data (e.g., journaling transcripts) remained on a password-protected computer of the researcher. Information was only shared to committee members, if necessary, by a USB drive, which was cleared after it was loaded on a password-protected computer of the committee member. At the conclusion of the interviews, participants were provided with resources for the campus counseling center at their respective universities if they chose to seek help.

The researcher also conducted personal field notes in the form of journaling. The researcher set aside time one to two times per week, starting in September, to journal about experiences she faced and how that contributed to her personal stress and anxiety. She kept a journal during this time of data collection, with each entry focused on how she

was feeling stress or anxiety. No specific prompts were used during the journaling experience. Journal transcripts were used as data.

The researcher's journaling took place over the course of her third semester as a graduate student. The journaling was a form of self-reflexivity, a "process of reflecting critically on the self as researcher, the 'human as instrument'" (Merriam, 2009, p. 219). Journaling began in August and concluded in November 2019. There were 14 entries reflective of the experiences faced by the researcher during the week prior. The researcher journaled on Mondays or when she was stressed, which was the focus of the entry.

Data Analysis

Data were analyzed using the constant comparative method, which began with coding. Coding is assigning a keyword or shortcut that is reflective of commonalities in data (Merriam, 2009). The researcher transcribed and read the transcripts of interviews in order to code the data. The codes were analyzed and grouped based on similarities, which all relevant data fell under the same category. Categories are elements that cover many individual pieces of the data (Merriam, 2009). The goal of this was to construct categories that are recurrent and reflective of the data (Merriam, 2009). If new codes arose, the researcher employed the constant comparative method, noted the code, and re-analyzed the previous interviews to see if there was a similarity that was overlooked or related to this new code. Searching through this data is called open coding, by just "identifying any segment of data that might be useful" (Merriam, 2009, p. 178). After developing first-level codes, commonalities were grouped together to form second-level

codes. The second-level codes were then condensed to form themes based off of the relationship to the data.

Trustworthiness

In qualitative research, validity and reliability are established by “techniques such as prolonged engagement in the field and the triangulation of the sources, methods, and investigators to establish credibility” (Creswell, 2007, pp. 203-204). The researcher must do an adequate job to ensure that the data is thorough and accurately represented, that there is thorough description of what the participant is telling the researcher (Creswell, 2007). Additionally, to ensure the quality of the interviews, having thorough field notes, as well as reliable handheld recorders, a proper interview environment, and a reliable and secured computer for transcription of data was obtained to ensure the quality of the interviews (Creswell, 2007).

The researcher stated her reflexivity below to remain transparent to the research so that none of her own views were reflected in the research other than those views recorded and analyzed during the journaling and reflexivity. The researcher attempted to establish trustworthiness through her work in the athletic training setting daily. She was formerly an undergraduate athletic training student; therefore she had credibility and understanding of the present-day athletic training curriculum. The researcher documented her own field notes as a graduate athletic training student about her stress and anxiety on a daily basis, exclusively and transparently.

Reporting Procedures

Upon completion, findings were shared with the thesis committee of the researcher. Additionally, this research was presented to the research thesis committee.

The goal was to share the results of this research at an academic research conference as well as submit a manuscript for publication in a peer-reviewed journal.

Human Participant and Ethics Precautions

A proposal was submitted to the thesis committee as well as James Madison University's Institutional Review Board (IRB). Upon IRB approval, participants were recruited through in-person invitations, e-mail distribution to athletic training academic program directors. The interested athletic training students and post-professional athletic training graduate student participants completed a consent form for this study. They were informed they could opt out of the study at any time. There were no direct benefits or risks to the participants. The research aimed to ensure efforts to keep anonymity through the use of pseudonyms. Pseudonyms were assigned using a random name-generating website that produced 100 random names. Each person received an assigned pseudonym by selecting a multiple of 10 based on their interview number (first person received the 10th name on the list, second received the 20th number, etc.).

Self-Reflexivity

The primary researcher was a certified and licensed athletic trainer. While completing a bachelor's degree, the researcher took interest in mental health, especially in her Psychosocial Aspects of Sport course she took the fall of her junior year. As a student, she felt the pressures of maintaining high marks in class with a competitive curriculum, attending clinical, passing her certification test, getting accepted into graduate school, maintaining the success of a student club of which she was president, and finding time where she could balance work and life. She confided in professors when she was stressed. However, when a professor suggested she seek professional assistance,

she was waitlisted due to lack of resources and found frustrations confiding in people she did not know. She had a difficult time asking for help thinking that her professors, peers, and preceptors would think she was asking too much. Upon entering graduate studies, the primary researcher considered whether her own students were experiencing similar feelings from her undergraduate experience. The researcher hoped to investigate how ATSS were shaped by stress and anxiety and how they coped with their mental health.

Findings

Four themes were constructed from the data: Student Identity, Time Management, Relationships, and Support Systems. Theme one, Student Identity, was constructed from three second-level codes: stress, expectations, and mental health. Theme two, Time Management, was formed from four second-level codes: plan to eat, plan to sleep, class and clinical, and time demands. Theme three, Relationships, was developed through two second-level codes: personal life and relationships. Finally, theme four, Support Systems, was generated through one second level-code: support.

Student Identity

In the athletic training curriculum, students have to balance perceived expectation of being a student with schoolwork and experiential learning, which can lead to stress. These individuals manage their outside demands and balance the pressures that are put on them as a student. There are many expectations that also come with being an ATS and lead to their identity. As stated by Theresa, “when I first got into the program, I felt very much pressed, like this needs to be your first priority, this needs to be your first thing when you wake up in the morning, this is what you’re doing.”

Amanda stated she believed there was distance between professors and students because students were afraid to reveal their stressors or anxieties. There were expectations, she said, that they needed to meet in the program, and they did not seek help because that was an added stressor. Additionally, because of the expectations of professors, Theresa stated:

I think that I thought this program expected me to be a certain person that I wasn't, and that's not a bad comment. I am not trying to speak badly of the program; they have given me so much. I'm just saying in life in general, people expect things of you, and I know myself, I got a skewed version, a skewed idea of what I was supposed to be from this, so I think a lot of the pressures and a lot of the things I've felt, like I'm not allowed to talk to people about, I put a ton on myself because I thought this is what the program expects of me.

In terms of stress, participants stated that class was the main source of stress. Clinical, although more demanding, was less stressful because of the environment and the social interaction with athletes. As Samantha stated, "I think my stress is definitely my lowest when I am completing my clinical just because I feel so at home there with our staff, with my fellow students, and with my athletes. I am comfortable there." Another stressor stated best by Bruce and Ronald was figuring out what was next and what to do after graduation because the expectation put on oneself was to continue to earn another degree or to get a fulfilling job. Bruce stated the following:

I think for me, the stress has become more over the semester, but I wouldn't say it's mainly because of class schedules or clinic but it's more of what comes after senior year with grad school applications and what I want to do.

Mental health was something these students dealt with as they took on the anxieties, pressures, and expectations of their student role. For example, Craig stated:

Yes, well I get really anxious in general in social situations and I get really anxious if, well not necessarily I did something wrong, but if I didn't do something correctly like something as simple as feeling I didn't get a 100 on a homework gets me really anxious and physically ill, I guess.

Samantha supported this statement:

So, I guess dealing with that I've just had to take it one day at a time 'cause when I try to plan too far in advance that's when I get anxious about the unknowns. And sometimes that manifests, like during preseason sometimes I'd wake up at 3 a.m. in a bolt because I thought I was late, but it was 3 o'clock in the morning. I don't have to be there for four hours. Like, why am I stressed? And that was just my body's subconscious reaction to me not wanting to be late.

Participants also stated that they had anxieties related to their academic requirements, especially when it came to school and graded assignments. For example, Samantha said that she was not diagnosed with anxiety but definitely had anxieties that existed. The common theme among these participants and their anxieties was that they were all school- and class-related but not affiliated with clinical. Christine stated:

I think athletic training students definitely experience some of the highest levels of acute stress. Any other major that I've really talked to, they've got this periodic stress they'll have, whether it's exams or something specific to their program. I think athletic training students are constantly there, which you've got so many repercussions from, whether it's emotional turmoil, or its anxiety, depression, or

whether it's just if you're constantly stressed your cortisol levels are staying super high and you've got this hormonal chemical issue that your body is not in a healthy state. I've definitely seen that throughout my program, throughout some of the programs I have worked with, so I don't know. I just think it's probably an epidemic among athletic training students.

Christine's quote summarized that class and schoolwork were an epidemic of stress in the athletic training curriculum.

Time Management

When it came to time management, athletic training students had a busy schedule of balancing class and clinical. Participants admitted they compromised health and school as a result of being overscheduled. Athletic training students were usually unable to elect some of the clubs or classes they wanted to take once they started clinical because it did not align with their priorities as an ATS. Students also compromised their own health. Katherine mentioned that it was hard to balance proper eating schedules because of the structure of class and clinical: "... [D]inner is a little more difficult because I'm usually leaving my clinical site so it's easier to stop and get fast food on the way home, or I usually just eat in my room so a microwave meal or something like that." Additionally, Christine mentioned that there was also a barrier with going from class to clinic and having time to eat because an ATS cannot assist in modalities, rehabilitation, or overall treatment of an athlete while eating, so it led to a relationship with disordered eating.

Athletic training students ate less, slept less, and were stressed more, as stated by Theresa. In fact, she and others viewed these behaviors as a positive because it showed their dedication to the program, as Theresa noted.

I think a lot of people come into this program, especially as a junior, and you hear about the things that the class ahead of you has been through and you kind of almost think of it as a honor to go through that trouble because that means I'm putting that same amount of work, kind of thinking, and I think that's a terrible mindset. That is so bad, it's almost romanced that you don't sleep or eat enough.

Athletic training manifested the students' lives. Craig suggested that in order to be "good" at the profession you had to adopt it as a lifestyle:

Honestly, when I'm in school, it is my life just based on the timeframe that you have to dedicate being an athletic training student. I pretty much just go to class and clinical, and that sums up the majority of my day.

Participants mentioned having to plan their day and categorize their work in order to manage the stress that came along with the time management. Participants tried to be proactive, so it did not lead to further compromising their personal life and health.

Relationships

According to participants, personal relationships were compromised due to their role as an ATS. When it came to friends, families, and the outside pressures, ATSs took on more than the usual student. Sansgiry and Sail (2006) found that perceived course load could lead to test anxiety among the general college student body and can be combatted with proper time management and effective study strategies. However, ATSs noted their clinical requirements made balancing personal lives too difficult.

Participants responded that they gave up and compromised relationships with friends due the amount of time spent at their clinical sites. Nina stated:

... [M]ost of my friends have become my friends that are in the program and then I don't have a lot of friends outside of the program anymore. Well I do. They get it. They're busy on weekdays, too, because they're seniors. They are just as busy as I am with senior stuff and then we just hang out on the weekends.

This shows that, similar to athletes, people with similar experiences and responsibilities have more of an ingroup dynamic and spend more time together because of those similar challenges. It is easier to spend time with the people within the ingroup who understand the lifestyle than trying to explain it to people within the outgroup who do not understand those experiences (Tajfel, 1970).

As Amanda and others mentioned, there were occurrences that happened at home that were affecting students in school and compromising their classes because they were dwelling on them. Additionally, personal life was an added pressure when family members were sick, and students were not able to spend time with them as much as they wanted. Students brought that exhaustion and negative energy into class and clinical.

Deborah stated:

... Like, my mom has terminal cancer, so someday I know I came into clinic with either bad attitude or just exhausted because I took the time to drive home for an hour for dinner, and those are things that I would share with my peers for them to know, but still affects the way that I interact with people and my stress levels in clinic and what energy levels I carry into clinic or class from my personal life. So, I think there are so many factors of stress in athletic training, but definitely clinical and class continue to be the bulk of them.

There were participants, like Ronald, that were working other jobs to pay their rent, which was an “added stress that some people in the program don’t have to worry about.” This positioned ATs parallel with other students, but the ATs were in a position with overwhelming time demands that they could not allocate energy to other things because of the demands on which they needed to focus. ATs had to prioritize their schedules above managing their relationships outside of school and clinical.

Support Systems

This research aimed to understand how athletic training students sought support for mental health in a time of stress. A support system was defined to be anybody that participants talked to for support. Participants were asked if they felt comfortable talking to their preceptors. If participants indicated they were dealing with anxiety, they were also asked if they sought professional help. When it came to support systems, a common theme was that participants (50%) did not seek help when they were feeling anxious or having anxieties; they just tended to cope themselves. For example, Tammy stated, “No, I don’t think it’s unmanageable. It’s something I can deal with, but I don’t think it’s gotten to the place that I have to seek help. I just think I’m overly anxious.”

Three participants did seek help from a healthcare professional that specializes in mental health, but four participants deviated to friends and family for support. Amanda, who sought professional help, stated:

I do go to therapy. I’ve only done it like two times. It’s a continuous thing I am doing but it’s just hard with my schedule to find those weekly appointments. But it has taken me a while to get to that point where I’m like, OK I’ll try it.

Seeking professional help for mental health became a barrier due to time management and participants prioritizing others over themselves.

Two participants resorted to academic resources for help with their anxieties. Katherine said, “Yes, my professors are really helpful with that so if we explain to them that we are having a really tough time ...” the professors were able to be more flexible and assist the athletic training students. One commonality was that when comparing professors and preceptors, there seemed to be more of a comfort level talking to preceptors rather than professors. Tammy stated:

I think I feel comfortable talking to the preceptors. Right now it doesn’t seem to be an issue, but I think if it should be an issue I would feel comfortable going to them like, hey I think I need to back off my hours for this week just because it is going to be a busy week.

Additionally, Amanda expanded on what Tammy said about preceptors and also felt comfortable reaching out to talk to their preceptors. She stated:

I think my preceptor is pretty good about making sure if we do need to make an appointment, he will be like, let me know which day you want to be your off day, which works for you to make that appointment. If we have a quiz that we want to go to or an open lab at night, he will be like, we can get out of here 30 minutes early, so he’s like pretty good about helping us with the scheduling aspect of things.

Self- Reflexivity Journaling

As a part of data collection, the researcher collected data through journaling that was coded concurrently with data from participant interviews. As a result, the

researcher's self-reflexivity data aligned with the stressors and anxieties that the undergraduate participants experienced.

Student identity. The researcher struggled with the expectations placed on her. The researcher found it difficult to manage stress and mental health and attempted to cope with these on her own, which led her to struggle more: "I've been so overwhelmed. I'm so tired. I'm so emotional. I have so much going on. I'm burned out. I'm unmotivated. My light is dull." When she faced tough days at work, she wrote:

... [I]t's scary when something like this is completely out of your control. As an athletic trainer, I feel like you take so much pride in keeping athletes safe, and when something like this happens, you don't know what to do and you put a lot of it on yourself.

Responsibility levels evolved from the undergraduate student to the certified athletic trainer. The certified athletic trainer, because they were more involved in decision making, inherited more responsibility of the team and athletes like managing all treatments as well as administration work. The evolution shifted identity from "student" for the ATS to "employee" for the graduate student. Responsibility evolved as the student moves into the graduate assistant position as seen through the self-reflexivity. The weight of responsibility was not as present among undergraduate student participants because they stated that clinical was not as stressful; school was more stressful for them. However, for the researcher/certified athletic trainer, the work was more stressful than the graduate school setting because it was considered work.

Time management. The researcher found it difficult to manage time with her sport practices in the morning and classes at night, falling behind with academic work and self-care. This aligned directly with participants. “As you can see, I missed a week [of journaling]. In a way, I feel like I let myself down a bit because I let AT [athletic training] overtake me.” The researcher ended up feeling overwhelmed when unexpected work piled up:

I was left to go and pull all the materials as my supervisor went on a run in the afternoon and didn’t make it out to practice. I went and somehow covered four practices on Friday, which was a tad interesting running all around and trying to meet the needs of everybody.

In terms of eating and sleeping, like the undergraduate participants, she also fell short in this area and resorted to pre-planning her days to allow for ample time to sleep. However, the pre-planning was unsuccessful because of the volume of demands the researcher faced.

Last night was the first night in a while I could not shut my brain off. I had a very difficult time sleeping because I was thinking about all the things that I had to do today. I ended up showing up on the wrong day for something very early and did not have to be there because I was worrying so much about getting it done.

This struggle to manage basic daily activities such as eating, sleeping, and attending meetings was also comparable to the participants in the research, but because of being certified and practicing independently, there were different sets of added demands like doing treatments, rehabilitation, pre-practice preparation, practice coverage, administration tasks, etc. In terms of planning her schedule, the researcher, like the

participants, tried to over-plan her days. This was actually counterproductive and led to more stress. She got out of that routine because it was too structured.

Relationships. The researcher was a graduate student and certified athletic trainer and wrote that she had feelings of anxiety and stress through personal relationships. She struggled to manage her relationships with her supervisor and coaches.

Today was rough. Extremely stressful. It was the kind of day that I felt that I could not care for anybody. I felt as if from the moment I got in to the moment I left I was constantly bombarded by athletes needing something from me. I felt that I had to do everything in order to keep everything rolling and then I didn't have much assistance from my supervisor.

The researcher also tried to manage her own personal relationships, and that was an added pressure to her stress and anxiety as the semester went on, dealing with stress of trying to manage relationships, and feeling that she could not give her attention to each of them. For example, the researcher had to balance relationships of work and family as she missed an important family event for work and not having the time to be at both. Instead, she had to prioritize the relationships. Within her journaling, relationship stress aligned with that of the participants in the research. Participants were undergraduates compared to the researcher's graduate student status, but the researcher still faced similar challenges and tried to manage her own relationships rather than seek professional assistance or guidance.

Support systems. The researcher had a support system, but, similar to participants, the researcher did not initially contact a mental health professional until she had time that did not conflict with work and class. She wrote:

Today I took a big step in my own self-care. Although life has been stressful and I have had a lot going on, I took control of how I have been feeling. I went to the doctor today and got put on anxiety medication that is probably well overdue. The researcher stated that she had to put off going to a mental health professional to talk because it did not fit within her schedule. She relied on the support systems that she trusted, such as friends, co-workers, and others willing to listen. As a result, she often deviated to friends, coworkers, and other people she entrusted with talking about her feelings until it became too much to handle on her own. "I had a breakdown to [friend] on Tuesday with all my frustrations. I started breaking out in hives, and the doctor chalked that up to stress."

The researcher's view on social support was that she did not need to seek professional care. She blamed an inability to talk to a professional because of her busy work schedule. This aligned with participant responses as they were also more likely to resort to people they trusted, like family and friends, rather than seek professional care.

Discussion

Athletic training students are different than most regular students; however, they are similar to the student-athlete population. Athletic training students must learn time management in a period of their life where they are not able to adapt to the changes at their own pace, and this resembles how student-athletes are also in a constant state of demand. Athletic training students, therefore, balance too much between identity, relationships, and time management, which in turn compromises their mental health because of a lack of support systems.

Ryan et al. (2018) found that mental health services are becoming a greater issue for student-athletes with all the added pressures they experience in comparison to the “regular” student. These pressures include academic pressures, coaches, season performance, etc. (Ryan et al., 2018). The pressures predispose athletes to more mental health issues such as anxiety, depression, substance abuse, and eating disorders (Ryan et al., 2018). Barriers that prevent athletes from seeking help are lack of time and perceived negative reactions by coaches (Ryan et al., 2018). Removing those barriers would reduce stigma (Eisenberg et al., 2009). Findings from the current study show athletic training students are in a comparable position. They dedicate hours toward clinical, school, applying to graduate school, passing their boards, and admitted they did not allocate time to seek professional care.

Participants in the current study did not establish professional care within their support systems for mental health. The participants instead relied on friends and family and felt more comfortable talking to their preceptors in time of need. Participants perceived that it was more difficult to speak with a professor about mental health. This could lead to them compromising their mental health as the participants try to manage their over-scheduled lives that the field demands. They are expected to maintain their mental health, but they are so busy consumed with a multitude of other tasks that they might not realize the need or know how to ask for help. It was shown that all the students that were juniors and seniors (11 of the 12 participants) were dealing with some sort of stress. The one participant that was not as stressed was a sophomore in clinical with more of a restriction of hours.

ATSs are so dedicated to caring for the athlete that they ignore caring for themselves. The results of this research draw connections between athletic training student compared to student-athletes. It showed that like the student-athlete, ATSs are taking on more demanding schedules. However, unlike the student-athlete, they are not being provided with the medical resources in order to cope with the stressors that come with that schedule. The current study supports prior research as it showed there is a lack of initiative from the ATS, like the student-athletes, to seek mental health support because of scheduling and time commitment.

The current study expanded to show that a graduate student in athletic training may also face barriers to seeking mental health support. While concerning, it reveals a need for a scaffolded approach to preparing undergraduate students for the escalated stress they will endure and how to establish a professional support system beyond just family and/or friends. Reed and Giacobbi (2004) found six areas of stress to be present among graduate assistant athletic trainers: duties as an athletic trainer, comparing job duties, student responsibilities, social, future, and time management. They manage their stress through planning, social support, and adjusting their work responsibilities (Reed & Giacobbi, 2004). In the research, the participants tended to cope with their stress by talking to support systems (friends) and trying to plan a schedule. The current study found that a graduate athletic training student endured the same stressors and limitations that undergraduate ATSs faced. The current study showed consistency with Reed and Giacobbi (2004) in terms of identity and time management. The theme of identity showed similarities with Reed and Giacobbi's barriers of job duties and student responsibilities current study; however, it built off of Reed and Giacobbi's findings in that a lack of

formal support systems and relationships were problematic for ATs. With this, it is notable to mention that the graduate student found that work was “stressful” as it became her job while school was viewed as additional work. In contrast, undergraduate ATs in the current study found clinical was not stressful but school was the major factor in their stress. This shows a shift from student identity to employee identity as an AT student moves from undergraduate student to graduate student.

Reed and Giacobbi found that planning and instrumental support systems were coping mechanisms of graduate athletic training students, which is supported by the current study. However, both Reed and Giacobbi and the current study show that graduate students are still stressed and unable to cope properly. There is no formal support system for graduate athletic training assistants. There should be a stronger support system for graduate students as they transition from a student identity into a working identity with more independence and responsibility. Not developing a support system could lead to burnout (Mazerolle et al., 2012b), although it was not a major theme of the current study likely because participants were at the start of their careers.

Possibilities for preparing students for a transition from undergraduate programs to graduate work could be simulations during the undergraduate experience to prepare undergraduate students for responsibilities they will inherit as graduate students while they complete their clinical studies. However, in their clinical studies, undergraduate students always have a safety net under them to be able to make mistakes. These safety nets are made up of preceptors who double check their work with the understanding that they are still learning. Students should also be placed in situations of decision-making while in the undergraduate athletic training student role. This would be beneficial for the

student as they transition toward independent practice. Additionally, a mentorship program would benefit upperclassmen as they learn from graduate assistants or faculty members.

The current study was approached through the lens of the Theory of Stress and Coping (Lazarus & Folkman, 1987). The Transactional Theory of Stress and Coping states that when someone is stressed, they more easily cope with their stress when they have a strong and reliable support system (Lazarus & Folkman, 1987). The theory also states that the more positive affirmation one gets leads to better outcomes and work ethic (Lazarus & Folkman, 1987).

The current study used this theoretical lens when examining findings, which showed that students work better when they have a more positive environment as seen in clinical. The participants did not view their clinical work time as a stressful experience. The only stress they had was if something went wrong with an athlete. This research also showed and supported that students need more of a positive support system in order to get work done more efficiently. Findings from the current study showed that students lacked the formal support system and tended to cope with their stress by themselves, leading to more stress. This was true for the graduate assistant as seen with the researcher's journaling. She was able to cope better with stress as she resorted to people that she trusted to talk about her stress. However, she often was negative about her work when she was stressed because no formal support system existed from her coaches and her supervisor. The findings from this study are consistent with the Transactional Theory of Stress and Coping (Lazarus & Folkman, 1987), and suggests that athletic training

students are better capable to cope with their stress when they have a more positive support system, which many of the participants lacked.

Limitations and Further Research

This study's limitations were the geographic representation from academic programs, the lack of variety in level of education, gender (75% females and 25% males), and scheduling (NATA, 2017b). Programs from only three schools responded to this call for participants, which initially was sent to 12 programs. These three schools only had traditional bachelor's degree programs. Therefore, there were no master's degree program students that participated in the research, aside from the researcher and her journaling.

Additionally, most of the participants were female. In total, there were nine female participants (75%) and three male participants (25%). While this limits the findings, it also aligns closely with the nature of the athletic training industry. The national ratio of female-to-male population in athletic training is 55% female members according to the membership totals from the National Athletic Trainers' Association (NATA, 2017b).

Due to the nature of qualitative research, the participants might have also felt restricted in sharing true experiences with the researcher via interview, which reflects social acceptance bias (Rosenfeld, 2012). Undergraduate students may have desired to answer the question with what they felt was the right thing to say, especially to a perceived superior who is a certified athletic trainer and graduate assistant. Social acceptance bias, however, may be present in all research.

The current study was limited in scheduling times to meet with the prospective participants due to their course and work schedules and finding the most convenient time to talk for both researcher and participant. This also determined the decision of the researcher to conduct one interview session at mid-semester. Participants may have felt rushed or disconnected from the research due to the nature of conducting data collection remotely via telephone or videoconferencing.

A delimitation was that this research only invited participants enrolled in athletic training programs in the state of Virginia. The researcher chose to focus on the athletic training programs in Virginia due to the nature of a case study. Qualitative work does not have to be designed for generalizability. Merriam (2009) argues that a case study should fall within a bounded system so it can be managed, and the researcher chose to collect data within the bounded system of athletic training programs in the state of Virginia. Additionally, another delimitation was that the researcher journaled solely on her stressors and what she was going through in terms of her stress.

Given the findings of the current study, future research must explore how support systems benefit ATs within their academic program, and why students may not be seeking formal support systems that include professional care. This future research would help best tailor the type of support a student would need. Future research should also investigate female athletic training students and whether they are more affected by stress and why. It is important to see if females need more support than males, or if males need more support because they are not talking as much about their feelings. Also, future research should investigate the experiences of ATs from programs of different enrollment sizes, different divisional level of the sports at those clinical sites and

contrasting programs nationally (Division I, Division II, Division III). Additionally, it would be worthy of investigation if stress, anxiety, and coping among full-time/part-time employees are similar to that of graduate students, and how they compare to the undergraduate or master's degree entry-level students to see the changes of stress in levels of education and experience.

Practical Implications

Athletic departments must spend more resources on athletic training mental health resources. As the world of athletics is shifting and providing student-athletes with more available resources for their mental health, there should be more focus on athletic training students who resemble a similar schedule. The field of athletic training is a selfless profession in that athletic trainers and athletic training students provide care for others as part of their work. Athletic training programs, like student-athletes, should have preferred access to mental health first aid or more readily available counseling centers on campus to create a more structured approach to mental health for these students' support.

Internally, athletic training programs should provide simulations for independent practice, especially for those transitioning upon certification. These simulations can ease the stress as ATSs advance and could include sessions on how to run a team, talk to coaches, create an injury report, complete physicals and paperwork, expect longer workdays, file insurance claims, etc. There also could be a scaffolded support system for graduate students and a mentoring program that would benefit upperclassmen as they learn from graduate assistants, or faculty members, as the graduate assistants are being phased out during the current academic shift in the structure of athletic training programs.

There should be a shift to holistic care for student healthcare providers, including the athletic training student.

Conclusion

The purpose of this research was to investigate what stressors athletic training students face, how they cope with these stressors, and what resources they are seeking for support in coping with their mental health. As seen in much of the past research and supported by the current study, asking for help is something people avoid because of time constraints and the fear of how it will be perceived. Athletic training students should not fear asking for help. Normalizing a formal support system for athletic training students may work to combat both barriers of time management as well as psychological barriers of stigma.

The results of the current study confirm prior literature that stress persists in athletic training student lives. Therefore, there is a need for more of a positive social support system in order to promote a healthier lifestyle of coping with stress in the athletic training student populations to prepare them for the challenges that they may face as a certified and independently practicing athletic trainer.

The athletic training industry should have more readily available resources in their athletic training programs as athletes do now within an athletic department. It is important that with their education, athletic training students learn how to self-advocate for themselves to instill a better work-life balance. When athletic training students transition to independent practitioners, it is imperative they do not struggle with their work-life balance in order to provide greater holistic care for their patients, who are athletes. Athletic trainers need formal support systems that include professional care.

Seeking this type of professional care is hindered at the undergraduate level due to stigma and at the graduate level due to time management. In order to better promote a healthier lifestyle within the athletic training industry, athletic training programs should shift focus to providing holistic care for their athletic training students before the athletic trainer can properly care for the athlete.

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Table 6*Participant Demographics*

<u>Pseudonym</u>	<u>Academic Rank</u>	<u>Program Type</u>
Annie Washington	Sophomore	Bachelor's
Tammy Peterson	Junior	Bachelor's
Christine Rodgers	Senior (5 th year)	Bachelor's
Deborah Wilson	Senior	Bachelor's
Samantha Murray	Junior	Bachelor's
Amanda Lopez	Junior	Bachelor's
Bruce Osbourne	Senior	Bachelor's
Nina Hopkins	Junior	Bachelor's
Theresa King	Senior	Bachelor's
Katherine Washington	Sophomore	Bachelor's
Craig Morris	Senior	Bachelor's
<u>Ronald Gonzalez</u>	<u>Senior</u>	<u>Bachelor's</u>

Appendix A

VERBAL CONSENT DOCUMENTATION FOR PARTICIPATION.

SUBJECT: The Effects of Generalized Stress and Anxiety on Clinical Athletic Training Students

Oral consent serves as an assurance that the required elements of informed consent have been presented orally to the participant or the participant's legally authorized representative.

Verbal consent to participate in this telephone survey has been obtained by the participant's willingness to continue with the telephone survey by providing answers to a series of questions related to what the participant has experienced with their own generalized stress and anxiety.

* Phone Script: Hello, my name is Morgan Dumont. I am a graduate student at James Madison University. I am conducting research on the effects of generalized stress and anxiety on clinical athletic training students. This study is an interview of your clinical students (undergrad, MSAT, and grad students) and how they feel generalized stress and anxiety affect them in school and during clinical. I will be interviewing students once in the course of their Fall 2019 semester (mid-semester). I will be digitally recording the conversation we have and will be asking questions pertaining to stress and anxiety. There are no major risks to this study, nor are there major benefits to this study. You as a participant will be provided with resources to mental health counselors on campus following the interview, so they choose to seek out further help. Do you have any questions about this study? Do you understand the study? Do you consent to the researchers digitally recording the interview?

I attest that the aforementioned written consent has been orally presented to the human subject and the human subject provided me with an oral assurance of their willingness to participate in the research.

Surveyor's Name (Printed)

Surveyor

Federal requirements mandate that informed consent shall be documented by the use of a written consent form and in the case of oral presentation must also be witnessed in circumstances where human subjects are blind or illiterate.

Appendix B

Consent to Participate in Research

Identification of Investigators & Purpose of Study

You are being asked to participate in a research study conducted by Morgan Dumont from James Madison University. The purpose of this study is to investigate the effects of generalized stress and anxiety on clinical athletic training students (undergraduate, graduate, and post professional). This study will contribute to the researcher's completion of her master's thesis.

Research Procedures

Should you decide to participate in this research study, you will be asked to sign this consent form once all your questions have been answered to your satisfaction. This study consists of a survey that will be administered to individual participants in person. You will be asked to provide answers to a series of questions related to how generalized stress and anxiety effects clinical athletic training students.

Time Required

Participation in this study will require 15-20 minutes of your time.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study (that is, no risks beyond the risks associated with everyday life). There is a possibility that your involvement with this study may bring attention to possible stress and anxiety that is present in everyday life by talking about a sensitive topic (mental health). As a result, the researcher will provide contacts to mental health services at the respective university that you can seek.

Benefits

There may be no direct benefits to the participating except bringing attention to your mental health and having you be more open to talking about your mental health. The overall benefits of the study are bringing attention to the body of knowledge and prevalence of mental health (generalized stress and anxiety) in clinical athletic training students.

Confidentiality

The results of this research will be presented at a thesis defense, conferences, and in scholarly writing. The results of this project will be coded in such a way that the respondent's identity will not be attached to the final form of this study. The researcher retains the right to use and publish non-identifiable data. While individual responses are confidential, aggregate data will be presented representing averages or generalizations about the responses as a whole. All data will be stored in a secure location accessible only to the researcher. Upon completion of the study, all information that matches up individual respondents with their answers (including audio recordings) will be destroyed.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind.

Questions about the Study

If you have questions or concerns during the time of your participation in this study or after its completion, or you would like to receive a copy of the final aggregate results of this study, please contact:

Morgan Dumont
The Hart School, JMU Sports Medicine
James Madison University
dumontme@dukes.jmu.edu

Questions about Your Rights as a Research Subject

Dr. Taimi Castle
Chair, Institutional Review Board
James Madison University
(540) 568-5929
castletl@jmu.edu

Giving of Consent

I have read this consent form and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

☐ I give consent to be (audio) recorded during my interview. _____ (initials)

Name of Participant (Printed)

Name of Participant (Signed) _____

Date

Name of Researcher (Signed) _____

Date

Appendix C

Interview Questions

1. What year you are in school?
2. How old are you?
3. What gender are you, or do you choose to not identify?
4. If you are a MSAT, what is your undergraduate degree?
5. What have your previous clinical assignments been?
6. Tell me more about how the athletic training student lifestyle affects your life?
7. Tell me about a day in your life?
8. How do you feel talking to your preceptors about your schedule?
9. Could you elaborate on your work/life balance?
10. How do you feel your stress has changed or stayed the same since you started this semester?
11. Tell me about the balance of class and clinical?
12. How many hours a week do you spend at clinical?
13. What have you done about stress/managing your time?
14. Tell me about your stress while you are completing your clinical?
15. Do you experience anxiety in your life?
 - a. If yes, what resources have you sought out?
16. Tell me about your eating schedules and how that shapes your productivity?
17. Tell me about your sleep schedules and how that shapes your productivity?
18. Is there anything else you want to share about your stress, work as an ATS, or other parts of your life?

Appendix D



OFFICE OF RESEARCH INTEGRITY

MSC 5738
HARRISONBURG, VA 22807
540.568.7025 PHONE